

JOURNAL
OF THE
WASHINGTON ACADEMY OF SCIENCES

VOL. 17

JUNE 19, 1927

No. 12

BOTANY.—*New plants from Central America.*—IX. PAUL C. STANDLEY, U. S. National Museum.¹

On the following pages are described thirteen new Central American plants, chiefly trees and shrubs. Of special interest are the two new species of *Weinmannia*, representatives of a genus of trees of which only a single species has been known previously from Central America.

There is included in the present paper a description of a new species of *Hybanthus* from western Mexico.

***Weinmannia Wercklei* Standl., sp. nov.**

Usually a large shrub or small tree but sometimes (according to Wercklé) a large tree, the older branchlets slender, terete, dark reddish brown, the young ones compressed, densely puberulent, with short or elongate internodes; stipules soon deciduous, oval, 3–5 mm. long, broadly rounded at apex, green, glabrous within, sparsely or densely sericeous or strigillose outside; leaves simple, the petioles 2–3 (rarely 10) mm. long, puberulent or glabrous; leaf blades lance-oblong to ovate-oblong, mostly 3.5–5.5 cm. long and 1.2–2.3 cm. wide (on young sterile branches up to 12 by 6 cm.), acute or acuminate, acute at base; rather coarsely crenate-serrate, subcoriaceous, deep green above, glabrous, beneath paler, often brownish when dried, sparsely pilose, at least along the costa, with short appressed hairs, in age glabrate, the costa slender, prominent beneath the lateral nerves about 13 on each side, inconspicuous, nearly straight, extending to the margin; racemes terminal and axillary, pedunculate, densely many-flowered, the rachis 2–3 cm. long, puberulent, the pedicels slender, fasciculate, 2–5 mm. long, puberulent; calyx 5-parted, sparsely puberulent or glabrate, scarcely more than 1 mm. long, the lobes ovate, acute; filaments glabrous; ovary narrowly ovoid, densely whitish-pubescent, the styles glabrous, 1 mm. long.

Type in the U. S. National Herbarium, no. 678753, collected at San Cristóbal de Candalaria, Province of Cartago, Costa Rica, altitude 1,700 meters, by C. Wercklé (*Pittier* no. 3685). The following sterile specimens are conspecific:

¹ Published by permission of the Secretary of the Smithsonian Institution. For the last preceding paper of this series see page 245 of this volume of *The Journal*. Received March 30, 1927.

COSTA RICA: La Palma, Province of San José, alt. 1,450 m., *Biolley & Tonduz* 12513; *Standley* 37990. Cerros de Zurquí, Province of Heredia, alt. 2,200 m., *Standley & Valerio* 50589. El Muñeco, Province of Cartago, alt. 1,500 m., *Standley & Torres* 51140. Santa María de Dota, Province of San José, alt. 1,800 m., *Standley* 41581.

Only one species of *Weinmannia*, *W. pinnata* L., with pinnate leaves, has been known heretofore from Central America. In its foliage characters *W. Wercklei* resembles *W. lamprophylla* Hieron., of Colombia, which has a glabrous ovary.

***Weinmannia burseraefolia* Standl., sp. nov.**

Tree, the older branchlets blackish, with short internodes, glabrous; stipules broadly oval, persistent and recurved, green, coriaceous, glabrous; leaves pinnate, the petiole 1.5–1.8 cm. long, sulcate on the upper surface, glabrous, narrowly margined above, the rachis 3.5–4 cm. long, sparsely short-barbate at the nodes, elsewhere glabrous, narrowly winged between the lobes, the wings entire, 2–4 mm. in (combined) width; leaflets 9, oblong-elliptic to ovate-elliptic, 2.2–3.5 cm. long, 1–1.4 cm. wide, acutish to acuminate, sessile, the lateral ones oblique at base and acutish, the terminal one acuminately contracted at base; leaflets coriaceous, finely appressed-serrate, (serrations about 11 on each side), glabrous, lustrous above, slightly paler beneath, the costa very slender, prominent on both surfaces, the other venation inconspicuous.

Type in the U. S. National Herbarium, no. 1,306,224, collected in wet forest at Yerba Buena, northeast of San Isidro, Province of Heredia, Costa Rica, altitude 2,000 meters, February 28, 1926, by Paul C. Standley and Juvenal Valerio (no. 49848).

At the time of collecting the specimens the tree was recognized as distinct from the common *Weinmannia pinnata*, but it was impossible to discover fertile branches. Although the material is sterile, I have little hesitancy in describing it as a new species. From *W. pinnata* it differs in its acute, glabrous, closely serrate (not crenate) leaflets. In general appearance *W. burseraefolia* somewhat suggests *W. crenata* Presl, of northern South America.

***Alchemilla pascuorum* Standl., sp. nov.**

Sarmentose perennial, the stems 10–30 cm. long, procumbent, often rooting at the nodes, with elongate internodes, slender, hirsute with long, slender, chiefly appressed hairs; basal and lower stem leaves slender-petiolate, the uppermost leaves sessile or short-petiolate; stipules connate into a sheath, cleft into narrowly oblong, green, sericeous lobes; lower petioles 2 cm. long or shorter, appressed-hirsute; leaf blades reniform, 2–4 cm. wide, deeply cleft into 5–7 lobes, these broadly cuneate-obovate, rounded at apex, deeply serrate above the middle, with narrow, obtuse or acutish teeth, green on the upper surface and sparsely sericeous, beneath grayish green, rather densely sericeous with long, slender, closely appressed hairs; blades of the uppermost leaves deeply 3-lobed; flowers green, cymose, in small dense clusters near or at the ends of the branches, the pedicels 1.5 mm. long or shorter; hypanthium globose-urceolate, 1.5 mm. long, densely sericeous; sepals and bractlets erect, subequal, 0.6 mm. long, the bractlets lanceolate, the sepals lance-ovate,

acute or acutish, sparsely sericeous or glabrate; achenes broadly ovoid, obtuse, somewhat compressed, 1 mm. long, dark brown, nearly smooth.

Type in the U. S. National Herbarium no. 1,228,245, collected in wet meadow at Las Nubes, Province of San José, Costa Rica, altitude about 1,800 meters, March 21, 1914, by Paul C. Standley (no. 38455).

This plant is frequent in the pastures of the high mountains of central Costa Rica, and the following collections may be cited:

COSTA RICA: Southern slope of Turrialba Volcano, near Finca del Volcán de Turrialba, alt. 2,000–2,400 m., *Standley* 35028, 34940. Las Nubes, *Standley* 38386. Río Birris, *Standley* 35416. Fraijanes, alt. 1,600 m., *Standley & Torres* 47627.

On Turrialba the plant is called "mochililla." Like the other species, it is grazed by cattle.

Alchemilla pascuorum is a near relative of *A. venusta* Cham. & Schlecht., of Mexico and Guatemala, but in that the stems are hirsute with spreading hairs, and the leaves also are loosely hirsute.

ALCHEMILLA SUBALPESTRIS Rose, Contr. U. S. Nat. Herb. 10: 96. 1906

This species, known previously only from Mexico, may be reported from Costa Rica. It was collected near Finca La Cima, above Los Lotes, north of El Copey, altitude 2,100 meters, in December, 1925, *Standley* 42551.

ACAENA CYLINDROSTACHYA Ruiz & Pavón, Fl. Peruv. 1: 68, pl. 104, f. 2. 1798

This species, apparently common in the central and northern Andes of South America, may now be reported from Costa Rica. It was collected by the writer (*Standley & Valerio* 43639, 43682) on Cerro de las Vueltas, Costa Rica, at 3,000 meters, in December, 1925. It is frequent in the paramos of this high peak. Although not a very conspicuous plant, it attracts attention because of its handsome leaves with beautiful silky pubescence. One other species of the genus, *Acaena elongata* L., is common in the higher mountains of Central America, and ranges northward to Mexico.

Oxalis Maxonii Standl., sp. nov.

Plants woody or suffrutescent, branched, ascending or recumbent, the branches up to 1 m. long, red-brown, pilose with short, straight, mostly appressed hairs and puberulent with short curved hairs, the internodes short or elongate; leaves palmately 3-foliolate, the petioles very slender, 1.5–5 cm. long, pilose with slender, ascending or appressed, whitish hairs; leaflets short-petiolulate, the petiolules less than 2 mm. long, pilose with stiff spreading white hairs, the blades ovate or broadly ovate, 2–4.5 cm. long, 1.2–2.3 cm. wide, acute to very obtuse at apex, obtuse to rounded-obtuse at base, the lateral leaflets asymmetric, smaller and more obtuse than the terminal one, thin, green and glabrous on the upper surface, ciliate, beneath paler, thinly appressed-pilose with slender hairs, often glabrate; cymes slender-pedunculate, about equaling the leaves, 2 to 4-flowered, the bracts linear, about 4 mm. long, the pedicels proper 2–3 mm. long, minutely appressed-pilose, shorter than the slender peduncles, the bractlets linear, minute; sepals 4.5–5 mm. long, lanceolate, acute or obtuse, erect, thinly pilose with short slender white appressed hairs, thin, greenish; petals yellow, 1.5 cm. long, rounded at apex, glabrous; filaments 7 mm. long, densely pubescent; styles

densely pubescent; capsule (immature) oval-globose, 4 mm. long, densely pubescent with short slender whitish ascending hairs.

Type in the U. S. National Herbarium, no. 675390, collected in brushy undergrowth near the river, El Boquete, Chiriquí, Panama, altitude 1,000 to 1,300 meters, March, 1911, by William R. Maxon (no. 4996). Here are referred the following additional collections from Chiriquí:

PANAMA: Along river in shade, El Boquete, *Pittier* 2970. Woods along Griffen Trail, Horqueta Mts., alt. 1,700 m., *Killip* 3527.

In general appearance this is like *O. acuminata* Schlecht. & Cham., of Mexico and Guatemala, but in the latter the flowers are smaller, and the long-acuminate leaflets are pubescent on the upper surface.

Picramnia longifolia Standl., sp. nov.

Shrub 2.5–3 m. high, the young branches slender, at first sparsely and minutely puberulent, densely leafy; leaves 17 to 21-foliolate, the petiole 2–3 cm. long, the rachis 14–20 cm. long, sparsely puberulent or glabrate, the leaflets alternate, rather distant, the petiolules 2–3 mm. long, puberulent; leaflets obliquely ovate to oblong-ovate or (the lowest) broadly ovate, 3–4.5 cm. long, 1–2 cm. wide, rather abruptly acuminate or long-acuminate to an obtuse tip, at base very oblique, acute on one side, obtuse or rounded on the other, deep green above, slightly paler beneath, sparsely and minutely puberulent on the costa, elsewhere glabrous; staminate inflorescence pedunculate, about 20 cm. long, the rachis sparsely puberulent, the inflorescence much interrupted, the glomerules sessile and distant, the panicle branched near the base, the branches 5–10 mm. long, the bracts about equaling the glomerules; staminate flowers scarcely 1.5 mm. long, short-pedicellate, 4-parted, glabrous or nearly so, the sepals oval; pistillate racemes (in fruit) pedunculate, 10–12 cm. long, simply racemose, the rachis very sparsely puberulent, the pedicels solitary or fasciculate, stout, 5–8 mm. long, glabrate, divaricate or ascending; sepals 4, rounded, persistent and spreading in fruit, minutely and densely appressed-pilose; fruit dark red, obovoid-globose, about 1 cm. long and 8 mm. thick, rounded at apex, glabrous.

Type in the U. S. National Herbarium, no. 1,307,021, collected in wet forest on Cerro de las Caricias, north of San Isidro, Province of Heredia, Costa Rica, altitude about 2,400 meters, March 11, 1926, by Paul C. Standley and Juvenal Valerio (no. 52211). No. 52108, from the same locality, belongs to this species.

Related to *P. quaternaria* Donn Smith, the most abundant *Picramnia* of Costa Rica, which differs in its less numerous leaflets and simple staminate inflorescences.

Hybanthus serrulatus Standl., sp. nov.

Plants herbaceous or suffrutescent (only upper part of plant at hand), about 60 cm. high, the branches green, sparsely or densely incurved-puberulous; leaves alternate, the stipules subulate, 1.5–2.5 mm. long, the petioles 4–8 mm. long, puberulent; leaf blades ovate, the larger 5 cm. long and 2.3 cm. wide, acuminate, obtuse to acute at base, thin, finely and closely crenate-serrate to the base, finely villosulous above with whitish hairs, beneath slightly paler, incurved-puberulous, especially on the nerves; flowers numerous, in racemes terminating short or elongate axillary branches; racemes 4 cm. long or shorter,

the pedicels 4-6 mm. long, widely ascending, finely puberulent, the bracts leaflike, lanceolate, 1.5 cm. long or shorter, those at the base of the pedicel filiform and stipule-like; sepals broadly ovate, obtuse, nearly 2 mm. long, green, densely scaberulous-puberulent; lower petal 2.7 mm. long, densely puberulent outside, narrowly spatulate, the blade much shorter than the claw, the other petals about equaling the sepals; capsule rounded-ovate, 3 mm. long, scaberulous, minutely rostrate at apex; seeds ochraceous.

Type in the U. S. National Herbarium, no. 386032, collected in clay soil in the Sierra Madre of Michoacán or Guerrero, Mexico, altitude 1,100 meters, November 4, 1898, by E. Langlassé (no. 558).

Related to *H. fruticulosus* (Benth.) Johnston, of Lower California, in which the much narrower leaves are remotely and unequally dentate or subentire.

Begonia Torresii Standl., sp. nov.

Plants perennial, erect (the base sometimes decumbent), 25-40 cm. high, branched, the branches few, ascending, short or elongate, succulent, short-villous or glabrate; stipules oblong to ovate, about 1 cm. long, obtuse, green, glabrous, tardily deciduous; petioles slender, 4-15 mm. long, short-villous; leaf blades oblong or ovate-oblong, sometimes broadest near the apex, 2.5-7 cm. long, 1-3 cm. wide, obtuse to acuminate, oblique at base, rounded on one side, very acute on the other, irregularly duplicate-serrate, often coarsely so, or laciniate-serrate, especially near the apex, the teeth usually setose-mucronate, at first often copiously short-villous on both sides but in age usually glabrate; peduncles 1 or few-flowered, slender, erect, equaling or longer than the leaves, glabrous, or sparsely villous below; flowers pink; bracts oval, 4-6 mm. long, green, glabrous; staminate sepals oval, 6 mm. long, glabrous, exceeding the petals; capsule green, glabrous, 2 cm. long and wide, rounded at base, abruptly contracted above into a stout beak 1 cm. long, the body of the capsule 3-lobed, the lobes divaricate, triangular, abruptly contracted into a short horn.

Type in the U. S. National Herbarium, no. 1,228,283, collected in wet forest at Las Nubes, Province of San José, Costa Rica, altitude about 1,900 meters, March 21, 1924, by Paul C. Standley (no. 38561). The following additional collections may be cited:

COSTA RICA: Las Nubes, *Standley* 38599, 38523, 38640, 38816. Southern slopes of Turrialba Volcano, near the Finca del Volcán de Turrialba, alt. 2,400 m., *Standley* 35338.

The species is named for Prof. Rubén Torres Rojas, in whose company part of the material was collected. *Begonia Torresii* belongs to the section *Casparya* (sometimes recognized as a distinct genus), and is related to *B. urticae* L.f., of Colombia. It is probably the plant reported from Costa Rica by A. De Candolle² as *Casparya urticae* γ *hispida*, although the description does not agree very well. The Colombian *B. urticae* differs from *B. Torresii* in its thicker, more obtuse and more densely pubescent, short-petioled leaves, and in its pubescent fruit.

Begonia Valerii Standl., sp. nov.

Erect herb, 1-1.5 m. high, the stem stout, leafy above, usually simple, densely pilose with soft spreading brownish several-celled hairs; stipules

² Prodr. 15¹: 274. 1864.

lanceolate to ovate, 1.5-2 cm. long, attenuate, densely brown-pilose, soon deciduous; petioles slender, 8-17 cm. long, brown-pilose; leaf blades broadly oblique-ovate, 16-26 cm. long, 9-16 cm. wide, abruptly cuspidate-acuminate, very oblique at base and deeply cordate, densely, finely, and unequally dentate, thin, deep green above, thinly pilose with long spreading hairs or glabrate, beneath slightly paler, thinly pilose, especially on the nerves, with long, rather stiff, spreading hairs, about 10-nerved at base; peduncles 20-30 cm. long, thinly pilose, exceeding the leaves, the cymes lax or dense, several times dichotomous, many-flowered, 7-20 cm. broad, the branches sparsely pilose, the flowers umbellate at the ends of the branches; pedicels 5-15 mm. long, very slender, sparsely pilose; flowers white or pinkish; staminate flower with 2 sepals, these suborbicular, about 7 mm. long and wide, rounded at apex, rounded to subcordate at base, glabrous outside or sparsely pilose near the base; petals none; filaments united at base; capsule 3-lobed, 6 mm. long, sparsely pilose or glabrate, 2 of the wings very narrow, the third oval-oblong, horizontal, rounded at apex, about 1 cm. wide.

Type in the U. S. National Herbarium, no. 1,254,000, collected in wet forest at El Arenal, Guanacaste, Costa Rica, altitude about 500 meters, January 19, 1926, by Paul C. Standley and Juvenal Valerio (no. 45245). The following collections also are referred here:

COSTA RICA: El Arenal, *Standley & Valerio* 45287. Pejivalle, Province of Cartago, *Standley & Valerio* 46885, 46963, 47112.

In general appearance this resembles *B. involucrata* Liebm., which has glabrous pedicels and usually lobed leaves. *B. Biolleyi* C. DC., also closely related, is separated by its much more copious pubescence, that of the lower surface of the leaves consisting of long matted hairs.

Begonia Carletonii Standl., sp. nov.

Plants small, with short, densely leafy rootstocks 2-3 mm. thick, emitting numerous long fibrous roots and also slender stolons; stolons rooting at the nodes and bearing a single leaf, sometimes also a peduncle, at each node, the internodes 5-8 cm. long, sparsely setose-pilose; stipules lanceolate, about 9 mm. long, attenuate, persistent, thin, brown, pilose; petioles slender, 3.5-5 cm. long, pilose with long slender spreading brown hairs; leaf blades obliquely ovate, 6-9.5 cm. long, 2.7-5 cm. wide, long-acuminate, oblique at base and shallowly cordate, the basal lobes broadly rounded, palmately 8-nerved at base, the central nerve 3 times dichotomous, thin, sparsely setose-pilose on both surfaces, green above, paler beneath, the margin closely, finely, and unequally sinuate-dentate; peduncles equaling the leaves, 2 or 3-flowered, very slender, sparsely pilose; bracts and bractlets ovate or oblong, obtuse, 3 mm. long or shorter, erect, persistent; ovary densely villous; staminate flowers slender-pedicellate, the 2 sepals rounded-ovate, 6 mm. long, rounded-obtuse, rounded at base, sparsely pilose, the petals oblong-spatulate, 6 mm. long, rounded at apex, glabrous; capsule 7 mm. long, sparsely pilose, the 3 wings very unequal, the largest 6 mm. broad, obtuse, divaricate.

Type in the U. S. National Herbarium, nos. 1,081,658-659, collected in the region of Bocas del Toro, Panama, April 22, 1921, by M. A. Carleton (no. 206).

This begonia, although a small and inconspicuous plant, is exceptionally

neat in appearance. It is not closely related to any Central American species with which I am acquainted.

Oreopanax Donnell-Smithii Standl., sp. nov.

Tree, the young branches very thick, densely leafy, densely stellate-tomentose; bud scales densely tomentose; petioles slender, 6–21 cm. long, glabrous; blades of the larger leaves cordate-suborbicular to rounded-ovate, 19–24 cm. long, 16–18 cm. wide, rounded or very obtuse at apex, broadly rounded at base and shallowly cordate (sinus narrow, 1–1.5 cm. deep), chartaceous, entire, glabrous, deep green above, pale beneath, 5-nerved at base (with 2 inconspicuous slender lower nerves); blades of the leaves at base of inflorescence smaller, broadly ovate to oval, rounded at apex, broadly rounded or emarginate at base; panicles large, pyramidal, 20–30 cm. long and broad, the branches stellate-pubescent with minute ochraceous hairs; bracts 1–1.5 mm. long, triangular, divaricate; staminate flower heads dense, many-flowered subglobose, 5 mm. in diameter, forming lax racemes 5–13 cm. long, the peduncles stout, divaricate, 5–8 mm. long, stellate-pubescent; bractlets broad, rounded at apex, glabrate, ciliolate; corolla lobes 1.5 mm. long, ovate, obtuse; filaments slender, exceeding the corolla, the anthers oval, 0.8 mm. long.

Type in the U. S. National Herbarium, no. 355151, collected at Atirro, Province of Cartago, Costa Rica, altitude 600 meters, April, 1896, by John Donnell Smith (no. 6533). Here may be referred the following collections:

COSTA RICA: Río de las Vueltas, Tucurrique, alt. 635 m., *Tonduz* 13120 bis. Orosi, alt. 1,000 m., *Pittier* 1764.

This tree is a relative of *O. capitatum* (Jacq.) Decaisne & Planch., which has much narrower leaves. *Oreopanax Donnell-Smithii* resembles also *O. costaricense* March., but in that the inflorescence is glabrous.

Oreopanax nubigenum Standl., sp. nov.

Tree 6–10 m. high, the branchlets thick and stout, densely leafy, very sparsely stellate-pubescent or glabrous; scales of the leaf buds rounded, glabrous, ciliate, the stipule-like bracts enveloping the budding inflorescence as much as 6 cm. long, glabrous; petioles slender, 3.5–17 cm. long, glabrous; leaf blades broadly deltoid-rounded, often as broad as long, sometimes rounded-rhombic, 7.5–15 cm. long and broad, acute or abruptly acute, rarely obtuse, at base varying from truncate to obtuse but often very broadly cuneate, entire, coriaceous, glabrous, 5-nerved at base; fruiting panicles 9–17 cm. long, rather dense, the branches stellate-pubescent, the bracts 1.5–3 cm. long, triangular, acute, ciliate, divaricate; fruiting heads very numerous, containing 4–8 fruits, the peduncles stout, divaricate, 8–13 mm. long, stellate-pubescent; fruits subglobose, 5 mm. long, 6 or 7-celled, glabrous.

Type in the U. S. National Herbarium, no. 1,228,409, collected in wet forest at Las Nubes, Province of San José, Costa Rica, altitude, 1,800 meters, March 21, 1924, by Paul C. Standley (no. 38806). Represented also by the following collections:

COSTA RICA: Las Nubes, *Standley* 38711. Cerros de Zurquí, Province of Heredia, alt. 2,200 m., *Standley & Valerio* 50808.

This, also, is a relative of *O. capitatum* and of *O. Donnell-Smithii*. From the latter it is distinguished by the acute leaves, which are not cordate at base.

Sciadophyllum nicaraguense Standl., sp. nov.

Shrub 2.5 m. high; petiole 40 cm. long, stout, terete, obscurely strigillose or glabrate; petiolules stout, 4.5–13 cm. long, glabrate; leaflets (4 present on the single leaf available) oval-oblong, 24–32 cm. long, 9.5–15 cm. wide, broadly rounded at apex and caudate-cuspidate, the acumen 2–2.5 cm. long, attenuate, at base rounded, pergamentaceous, entire, concolorous, glabrous above or nearly so, somewhat lustrous, beneath dull, sparsely pubescent with minute appressed hairs, the costa and lateral nerves salient on both surfaces, the lateral nerves about 19 on each side, divaricate, curved near the margin and irregularly anastomosing, the ultimate nerves prominulous, closely reticulate; rachis of the inflorescence (only fragments present) ferruginous-tomentulose, the bracts deciduous; umbels few-flowered, the peduncles 6–8 mm. long, the pedicels about 3 mm. long, ferruginous-tomentulose; ovary tomentulose; calyx nearly 2 mm. broad; disk annular, fleshy; styles connate into a conic column nearly 2 mm. long.

Type in the U. S. National Herbarium, no. 1,082,152, collected at San Juan del Norte, Nicaragua, March 2, 1893, by C. L. Smith (no. 78).

Only incomplete material is available for study, but this is sufficient to prove the plant a distinct species. Only one other member of the genus, *S. systylum* Donn. Smith, is known from Central America. It grows in the mountains of Costa Rica. The flowers of *S. nicaraguense* resemble those of *S. systylum*, but the latter plant has copious stellate pubescence.

Dendropanax monticola Standl., sp. nov.

Tree 4.5–6 m. high, glabrous throughout, the older branchlets ochraceous; petioles slender, 1.3–6 cm. long; leaf blades ovate or elliptic-ovate, 7–13.5 cm. long, 2.5–6 cm. wide, acuminate or long-acuminate, rounded or very obtuse at base, pergamentaceous, entire, deep green above, slightly paler beneath, triplinerved, the lateral nerves 4 or 5 on each side, divergent at an angle of about 55 degrees, arcuate, slender, irregularly anastomosing close to the margin, the costa very slender; umbels few, few-flowered (flowers about 10), arranged in a terminal short-pedunculate umbel or in a short raceme; rachis of the raceme 1.6–4 cm. long, the umbels on peduncles 1.8–4 cm. long, the peduncles naked; pedicels 4–7 mm. long; ovary turbinate, nearly 2 mm. long, the calyx entire or remotely denticulate; petals green, obtuse or rounded at apex, 1.5 mm. long; stamens shorter than the petals; fruit not seen.

Type in the U. S. National Herbarium, no. 1,305,191, collected in wet forest near Fraijanes, Province of Alajuela, Costa Rica, altitude about 1,600 meters, February 12, 1926, by Paul C. Standley and Rubén Torres Rojas (no. 47538). The following collections represent the same species:

COSTA RICA: Fraijanes, *Standley & Torres* 47418. Cerro de las Caricias, Province of Heredia, alt. 2,000–2,400 m., *Standley & Valerio* 52051. La Ventolera, southern slope of Volcán de Poás, *Standley* 34687.

The nearest relative of this tree is *D. querceti* Donn. Smith, also Costa Rican, which has usually solitary umbels, and leaves which are broadest at or above the middle and narrowed at base.

Dendropanax praestans Standl., sp. nov.

Small tree, the branchlets stout, ochraceous, glabrous, densely leafy at the ends, the internodes very short; stipules very small, scarious, the margins

lacinate; leaves dimorphous, those of some branches merely dentate, those of other branches all or nearly all digitately trilobate, the petioles slender, 2-7 cm. long, glabrous; blades of the simple leaves ovate-oblong to ovate, 8.5-12.5 cm. long, 3.5-6 cm. wide, acuminate, at base obtuse or broadly cuneate, irregularly sinuate-serrate, the teeth obtuse, a few of them often much larger than the others, the leaves entire near the base or below the middle, 3-nerved at base, the lateral nerves about 5 on each side, arcuate-ascending; lobed blades about 13 cm. long and broad, broadly cuneate at base, lobed to within 3 cm. of the base, the lobes narrowly oblong, about 2 cm. wide, attenuate to apex, irregularly sinuate-serrate, the sinuses between the lobes rounded; leaves all subcoriaceous, glabrous, deep green above, paler beneath, minutely punctate, the venation prominent beneath; umbels many-flowered, arranged in a short-pedunculate terminal umbel, the peduncles of the ultimate umbels stout, 1.5-2 cm. long, naked or bearing near the base a short cuplike sheathing bract; pedicels stout, 4-5 mm. long, sparsely and minutely puberulent or glabrate; hypanthium hemispheric, the calyx very short, 3 mm. broad; petals triangular-oblong, acute, glabrous, 2-2.5 mm. long; stamens shorter than the petals, the filaments short, subulate; fruit subglobose, 5-celled, 5-6 mm. broad, glabrous; styles united for half their length.

Type in the U. S. National Herbarium, no. 677609, collected in wet forest of Cuesta de las Palmas, southern slope of Cerro de la Horqueta, Chiriquí, Panama, altitude 1,700 to 2,100 meters, March, 1911, by H. Pittier (no. 3213).

Here belong, probably, leaf specimens collected by myself (no. 41973) at Laguna de la Esquadra, northeast of El Copey, Costa Rica, at about 2,100 meters. These leaves are very large, about 30 cm. long, and deeply 5-lobed, the lobes coarsely serrate, or the terminal one pinnately lobed.

Among all the other North American species of *Dendropanax* (*Gilibertia*) this may be recognized at once by the toothed leaves.

ZOOLOGY.—*A new genus and species of frog from Tibet.*¹ LEONHARD STEJNEGER, U. S. National Museum.

In his Monograph of the South Asian, Papuan, Melanesian, and Australian Frogs of the genus *Rana*, Boulenger² described (p. 107) a series of ten frogs from Southern Tibet under the name of *Rana pleskei* (Guenther). The three localities: Lake Yamdok, 15,000 feet altitude, Kamba Jong [Kampadzong], and Gyantse are situated south of the Brahmaputra on the north slope of the Himalayas, north of the frontiers of Sikkim and Bhutan. Guenther's types came from western Szechwan, China.

The National Museum having recently received from the Rev. D. C. Graham good material of the true *Nanorana pleskei* and also, in exchange with the British Museum through the kindness of H. W. Parker, two specimens from Tingri, Tibet, not far from the general

¹Received May 7, 1927.

²Rec. Indian Mus. 20: 1-226. 1920.